

ANNUAL REPORT OF INSECT CONDITIONS  
TO  
US FOREST SERVICE, DELAWARE, OHIO

1977

Gypsy Moth

There were 20 male moth catches this year in Jefferson County, W. Va. Of these 20 male moth catches 19 are in the Shannondale, Appalachian trail area of Jefferson County. Three of the traps close to and south of the Wilson Gap shelter on the Appalachian trail were multiple catches of 4, 3 and 3 male moths. These multiple catches indicate that an infestation may exist in the general area. Ground scouting in winter months will be conducted to find egg masses that may be present.

Gypsy Moth Parasite Establishment

The parasite Brachymeria intermedia was apparently established near Allensville, Berkeley County. The parasite was recovered from an unknown pupae collected from burlap banding on white oak by Phil Van Buskirk on July 22, 1976. Establishment apparently occurred from release, a release made 2 1/4 air miles away near Johnstown, Berkeley County. (1972 Lymantria dispar trap catch site) on May 17, 1973 (1,000 individuals) and/or June 21, 1973 (1,000 individuals).

In addition to this recovery another adult male Brachymeria intermedia was recovered from a pupa of Bomolocha baltimoralis. This pupa was collected from burlap band on white oak at Fort Run site in Hardy County on August 10, 1976. The last release of B. intermedia at this site was September 11, 1975 (7,000 individuals) so overwintering and subsequent ovipositing did occur. This site was also a 1972 male gypsy moth trap catch site and releases there go back to May 16, 1973.

These two catches of Brachymeria intermedia are a first for apparently establishing the parasite in a non-infested Gypsy moth area.

#### Fall Cankerworm

Fall Cankerworm, Alsophila pometaria (Harris) populations continue at a low in the Grant and Jefferson County areas. These areas were originally infested with cankerworm.

#### Forest Tent Caterpillar

No infestations noted through the state.

#### Oak leaf tier complex

This tier complex continues to be a problem in West Virginia where over 100,000 acres were moderately defoliated. The infested area was originally and continues to be in Pocahontas and Greenbrier counties. However the insect has now been found causing damage in Raleigh county.

#### Walnut Caterpillar

Walnut Caterpillar, Datana integerrima populations seem to be increasing but no large scale infestation has occurred. All infestations are localized and have caused complete defoliation to walnut trees in several instances.

#### Oak Sawfly

Oak Sawfly, Caliroa quercuscoccineae caused over 100,000 acres of complete defoliation to oaks in Southern, W. Va. in 1977. The Dimilin field test scheduled for 1977 was scrapped because the insect did not materialize on the area scheduled for spraying. The insect moved westward from this area onto private land.

There are two generations per year by this insect. The first appearing in early July and the second in Mid-August or late August.

### Fall Webworm

Fall webworm, Hyphantria cunea continues to cause defoliation throughout the state of W. Va., but no large concentrated areas were defoliated. The insect can be found in probably every county of the State.

### Locust Leaf Miner

Locust leaf miner, Xenochalepus dorsalis caused heavy damage to black locust in W. Va. Due to heavy rains in August, 1977 many of the locust trees that were defoliated, refoliated and perhaps will not make it through the next season. These trees will be watched to see if they were able to withstand the defoliation by the miner and the putting on of new leaves in late August.

### Asiatic Oak Weevil

Caused approximately 1500 acres of defoliation in Pocahontas County. It is very difficult to tell where the insect damage starts and ends due to late freeze damage to trees in W. Va.

### Walking Sticks

The walking sticks caused over 1,000 acres of defoliation to black locust and oaks in Mineral County. This insect seems to be increasing and we may expect much larger acreages to be defoliated next year.

### Nantucket Pine Tip Moth

This insect continues to cause problems at Lakin State Nursery and Scotch Pine plantations throughout Western, W. Va.

### Hickory Tussock Moth

Hickory tussock moth, Halisidota caryae seems to be increasing and has caused moderate to heavy defoliation on hickory and walnut throughout the state.

### Freeze Damage

Late freeze June 8, 1977 when temperatures dropped to 23°F in higher elevations. This low drop in temperature has caused 54,000 acres of forest damage in the Monongahela National Forest. The areas affected are on Middle Mountain, Cheat Mountain, Allegheny Mountain, and Cranberry back country. Approximately 48,000 acres of this damage consisted of various hardwoods affected by late frost. Approximately 6,000 acres of red spruce had been winter burned. (USFS report)

### Rodent Damage

Rodent damage was found in Red Pine stands throughout the Monongahela National Forest. This damage is caused by girdling in top 1/3 of the red pine trees. Approximately 80% of the trees are affected. Dead tops are starting to show in many areas. Acres affected are unknown at this time but it would be safe to say all stands are damaged. It is not known how much red pine was planted by USFS and private organizations. Approximately 2,000 acres have been checked and damage has been consistent.

### Bark beetles

Infestations by bark beetles seem to have subsided in W. Va. this year. Few reports have been received.

## ANNUAL REPORT OF DISEASE CONDITIONS

### Bacterial Canker - Causal organism unknown

Bacterial canker was quite severe this year on both red and white oak. The disease resembles slime flux outwardly but unlike slime flux, it is a bacterial infection of the inner bark and cambium. It commonly occurs through wounds. This disease has been observed in both ornamental and forest trees. A description of this disease may be found in a publication entitled "Disease of Midwest Trees" [by] J. Cedric Carter.

### Winter Dessication

Winter dessication was extremely severe during the early spring of 1977. Extensive damage was noted on experimental loblolly pine plantations while moderate damage was noted on pitch and Virginia pine.

A similar problem involving red spruce in the higher mountain elevations was also observed. Numerous ornamentals such as holly, boxwood, and southern magnolia were also injured or killed.

The following is a list of forest disease conditions in West Virginia for 1977.

### Oak Wilt - *Ceratocystis fagacearum* (Bretz) Hunt

West Virginia is one of the few, if not only state that still has an active oak wilt control program. During 1977 disease incidence rose dramatically. Only 1668 diseased trees were spotted and processed during 1976 while 2710 trees were spotted and processed in 1977. No explanation has been offered for this sudden rise in disease incidence.

### Dutch Elm Disease - *Ceratocystis ulmi* (Buism) C. Mor.

Dutch elm disease is rapidly becoming the most significant forest and shade tree problem in West Virginia. Outbreaks of this disease have been reported throughout the state. The disease is becoming particularly severe along the State's major river systems (Ohio,

Kanawha, New River and Potomac).

#### Anthracnose Disease

Anthracnose disease of hardwoods was not nearly as severe in 1977 as it was in past years. Apparently the near drought conditions of early and mid-summer were not conducive to infection.

#### Diplodia tip blight - *Diplodia pinea* (Desm.) Kickx

Moderate damage was reported in five (5) Scotch pine plantations from Diplodia tip blight. In addition, this disease was observed on single Austrian and red pine trees throughout the state.

#### White Pine Root Decline - *Verticicladiella procera* (Kend.)

White pine root decline has been culturally confirmed in three (3) Christmas tree plantations. Eight other plantations suspected of having this disease have been located but the causal organism has not been isolated. Undoubtedly, other diseased plantations exist in the state but we have not as yet located them. Plantation owners estimate they lose 2-3% of the total number of trees each year to this disease.

#### Lophodermium Needlecast - *Lophodermium pinastri*

Lophodermium needlecast caused little if any damage in Scotch pine plantations in the state. Apparently climatic factors during the Fall of 1976 and Spring of 1976 were not conducive to disease development.

#### Verticillium wilt - *Verticillium albo-atrum*

Each year we lose numerous maple trees from throughout the state to Verticillium wilt. Disease incidence remains about the same each year.